



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

650.6310

Job Sheet 211167



Part No: 650.6310

Job Qty: 3 pcs

Part Name: Swivel Fitting



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/7/20

Job Tracking No:

Created By: Jennifer Renwick

Due Date: 7/10/20

Description:

Type: Stock

Note: 650.6300 REV.PG2 IPP REV:A 20.06.15 NEW ISSUE DD VERF:JFS

Ship Via:

139 Valve

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier Lead Time	
110	SL-154 - 1	3 pcs	7/3/20		1.00	1.50	Doosan - 1	
							NLX 2500SY - 1	
							SL-154 - 1	
							SL-2500Y - 1	
120	QC 2	3 pcs	7/3/20		0.00	0.00	QC 2 - 1	SL 20-7-17
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	SL
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	
							QC 2 - 8	

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Container No: S288773



Part: 650.6310

Job No: 211167

Serial No/Batch: S288773

Revision: REV.PG2

Inspector:

Exp Date:

Instructions:

Date: 07/17/20

Plex 7/7/20 3:25 PM Dart.Renwick.Jennifer

13d/10/10

11/10/10

130. QC 8	3 pcs	7/3/20	0.00 0.00	QC 2 - 66	
				QC 2 - 64	
				QC 8 - 12	
				QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 76	
140 Outsource - 17 - Passivate	3 pcs	7/10/20		GRO002-VC	5
150 Packaging 2-1 - Receive - B4B	3 pcs	7/10/20	0.00 0.00	Packaging 2 - 1 - B4B	
				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	

20/07/24

2020-07-27

				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
				Packaging 2 - 37 - B4B	
160	QC 6	3 pcs	7/10/20	0.00 0.00	QC 6 - 9
					QC 6 - 68
					QC 6 - 61
					QC 6 - 40
					QC 6 - 81
					QC 6 - 82
					AUG 28 2020
180	Packaging 3-1 - Stock - B4B	3 pcs	7/10/20	0.00 0.00	Packaging 3 - 1 - B4B
					Packaging 3 - 2 - B4B
					Packaging 3 - 3 - B4B
					Packaging 3 - 4 - B4B
					Packaging 3 - 5 - B4B
					Packaging 3 - 6 - B4B
					Packaging 3 - 7 - B4B
					Packaging 3 - 8 - B4B
					Packaging 3 - 9 - B4B
					Packaging 3 - 10 - B4B
					Packaging 3 - 11 - B4B
					Packaging 3 - 12 - B4B
					Packaging 3 - 13 - B4B
					Packaging 3 - 14 - B4B
					Packaging 3 - 15 - B4B
					Packaging 3 - 16 - B4B
					Packaging 3 - 17 - B4B
					Packaging 3 - 18 - B4B
					Packaging 3 - 19 - B4B
					Packaging 3 - 20 - B4B
					Packaging 3 - 21 - B4B
					Packaging 3 - 22 - B4B
					Packaging 3 - 23 - B4B
					Packaging 3 - 24 - B4B
					Packaging 3 - 25 - B4B
					Packaging 3 - 26 - B4B
					Packaging 3 - 27 - B4B
					Packaging 3 - 28 - B4B
					Packaging 3 - 29 - B4B
					Packaging 3 - 30 - B4B
					Packaging 3 - 31 - B4B
					Packaging 3 - 32 - B4B
					Packaging 3 - 33 - B4B
					Packaging 3 - 34 - B4B
					Packaging 3 - 35 - B4B
					Packaging 3 - 36 - B4B
190	QC 21 - SA	3 pcs	7/10/20	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70

Part Op 110 - 1-Turn as per Folio F _____ Dwg Rev: P/2 FOLIO Rev: A4 DEBURR

Descriptions: 120 - (QC2- Inspect parts off machine FAI/FAIB)

130 - (QC8- Inspect parts - second check)

140 - -Issue P/O; 46796 PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required

150 - Receive & Inspect for Damage & Mat'l Certs

160 - QC6- All purchased or subcontracted products

180 - (Identify as per dwg & Stock Location: _____)

190 - (QC21- Final Inspection - Work Order Release)

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
M17-4-H1150-R1.000	17-4 SS Round Bar 1.000"	.3750 ft (.125 ea)	110-SL-154 - 1	S263843 M126689
Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
110-SL-154 - 1	M17-4-H1150-R1.000	0	2	0
Part Specifications				
Specifications could not be found.				

Plex 7/7/20 3:25 PM Dart.Renwick.Jennifer

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

AEROSPACE

Job: _____ Part No. _____		Route update only		AEROSPACE	
DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		DEPARTMENT/PROCESS Cross tube ☐ Eng. (Non-AW) ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Finishing ☐ Rec/Store/Packaging ☐			
Date: _____		Sequence #: _____		QTY Affected: _____	
Description Work Order Deviation		Disposition			
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Other/Details: _____			
Completed By		Lead hand / Supervisor			
QC / QA Coordinator		Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐			

DART AEROSPACE LTD		Work Order: 211167
Description: Swivel fitting		Part Number: 650-6310
Inspection Dwg: 650-6300	Rev: 262	Page 1 of 1

INSPECTION SHEET

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
①	430	$\pm .005$	.429	/		VERN	SL-2
②	1/2-20 UNF-3A						
	major ϕ : .496	$\pm .0041$	.496	/		mic	SL-09
	min. W: .5096	$\pm .0016$	.5095	/		"	"
	wires .029						
③	.015x45°	$\pm .005 \pm .5^\circ$	.015x45°	/		VERN	SL-2
④	.402	$\pm 0 - .001$	.4013	/		mic	LG-inspb
⑤	.352	$\pm .002$	.3525	/		"	"
⑥	.385	$\pm .005$	.385	/		VERN	SL-2
⑦	.509	$\pm 0 - .001$	.5085	/		mic	SL-09
⑧	.700	$\pm .005$	.699	/		VERN	SL-2
⑨	.426	$\pm .002 - .003$	.4255	/		mic	LG-inspb
⑩	R.031	$\pm 0 - .015$	R.020	/			
⑪	R.02	$\pm 0 - .015$	R.008	/			
⑫	.020	$\pm .005$	.020	/		VERN	SL-2
⑬	.375	$\pm .005$	.377	/		"	"
⑭	.425	$\pm .005$	.426	/		"	"
⑮	.595	$\pm .005$	.596	/		H-G	
⑯	.635	$\pm .002$	.6355	/		H-G	
⑰	.845	$\pm .005$	.845	/		VERN	SL-2
⑱	.975	$\pm .002$	.9755	/		H-G	
⑲	1.275	$\pm .01 - 0.0$	1.280	/		VERN	SL-2
⑳	.505	$\pm .002 - 0$	.506	/		H-G	
㉑	.075	$\pm .015 - 0$	.078	/		VERN	SL-2
㉒	.810	$\pm .005$	.809	/		"	"
㉓	.250	$\pm .002$	.251	/		G-PIN	
㉔	1.050 deep	$\pm .005$	1.052	/		VERN	SL-2
㉕	.750	$\pm .005$	.749	/		"	"
㉖	.074	$\pm 0 - .005$	.0715	/		H-G	

DAS
82
9-89

Measured by: JL	Checked by: [Signature]	QC Inspector:
Date: 20-7-17	Date: 20/07/24	Date: AUG 28 2020

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

DART AEROSPACE LTD		Work Order:	21167
Description: swivel fitting		Part Number:	650-6310
Inspection Dwg: 650-6300		Rev: PLG 2	Page 1 of 1

INSPECTION SHEET

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
26	.030	+0.003 -0	.032	/		g-PIN	
27	.015X45°	+0.005 ±.5°	.015X45°	/		VERU	SL-2
28	.080	+0.004	.079	/		--	--
29	R.010	+0.005	R.008	/			
30	.310	+0.005 -0	.312	/		mic	CNC 22
31	.390	+0.002 -0	.391	/		--	--
32	.110	+0.002	.110	/		VERU	SL-2
33	.375	+0.002	.375	/			
34	.630	+0.005	.632	/		mic+g-PIN	SL-9
35	R.120	+0.005	R.125	/		R-G	
36	.03X45°	+0.005 ±.5°	.03X45°	/			
37	Ø.144	+0.002	.1445	/		g-PIN	
38	90°	+0.5°	90°	/			
39	13.7		13.7	/		SURFACE ROUGHNESS	
40	15.6		15.6	/		"	
41	17-4PH H1150 AMS 5643 OL ASTM A564		AMS 5643 AND ASTM A564	✓		MILL TEST	H/T 618959
42	PASSIVATE			✓		COFC ALTECH	

DAS
82
9-89

Measured by: JL	Checked by: [Signature]	QC Inspector:
Date: 20-7-17	Date: 20/07/24	Date: AUG 28 2020

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

Mitutoyo **Surftest SJ-400**

DATE 2000-02-13
TIME 18:27:48

STAND	JIS2001
PROFILE	R
FILTER	GAUSS
EVA-L	0.016in
N	5
λc	0.003in
λs	100 μ in
TILT-COMP.	ALL
CURVE-CMP.	OFF
M-SPEED	0.004in/s
R-SPEED	0.04in/s
AUTO-RTN	ON
RANGE	32000 μ in $\pm$ ESC
DRIVE	ON
STYLUS	STAND
PRE/POST	ON

R-PROFILE

EVA-L 0.016in
λc 0.003inX5

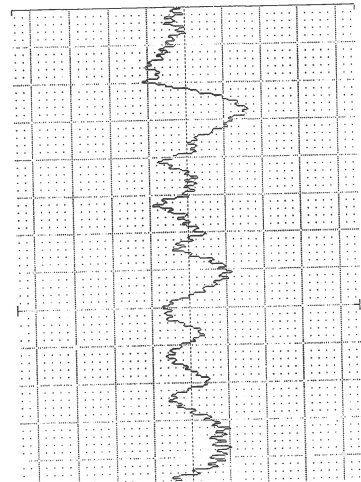
Ra	15.6 μ in
Rz	71 μ in
Rq	19.4 μ in

R-PROFILE

EVA-L 0.016in
 $\lambda_c=0.003\text{in}\times 5$

$\times 500$
 $\times 10K$

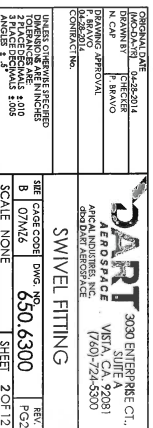
Ver. 100.000 μ in/in
Hor. 0.002in /in



8 MATERIAL: 17-4PH H900 STAINLESS STEEL IAW AMS 5643 OR ASTM A564

[illegible]

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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046796



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB046796

PO Date: 7/27/20

Due Date: 8/4/20

Purchase Order

Revision:

Revision Date:

Issued By: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	211477	650.6511	650.6500 REV.PB2	Fill Port Adapter -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X5	-	8/4/20	5 pcs	0 pcs	5 pcs	\$4.7619/pcs	\$23.81
2	210873	650.6213	650.6200 REV.PE1	Banjo -10 -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H1150 stainless steel -Certificate of Conformity is required	Firmed X2	-	8/4/20	2 pcs	0 pcs	2 pcs	\$4.7619/pcs	\$9.52



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PURCHASE ORDER

POHB046796



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	210872	650.6210	650.6200 REV.PE1	BANJO -4 -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H1150 stainless steel -Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs JUL 30 2020	3 pcs	\$4.7619/pcs	\$14.29 105
4	211168	650.6312	650.6300 REV.PG2	Screen Retainer -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs JUL 30 2020	3 pcs	\$4.7619/pcs	\$14.29 105
5	210647	650.7711	650.7700 REV.PF1	Cap Retainer -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs JUL 30 2020	3 pcs	\$4.7619/pcs	\$14.29 105



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER

POHB046796



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6	210875	650.6316	650.6300 REV.PG2	Swivel Fitting -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X2	-	8/4/20	2 pcs	0 pcs	2 pcs	\$4.7619/pcs	\$9.52
7	211167	650.6310	650.6300 REV.PG2	Swivel Fitting -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29

Grand Total: \$100.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Guerin

Plex 7/28/20 1:48 PM Dart.Guerin.Kimberley



Certificat de Conformité / Certificate of Compliance



0 2 9 8 6 9 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupepaltech.com

Bon de Livraison / Packing Slip

029869 - 1

Livré à / Ship to

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax: .

Client / Customer:

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courrier / Acc. No.	Bon de commande Client Customer Purchase Order No.					
28-Jul-2020		Ian Wilson		POHB046796					
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	Quantités / Quantities	
Job # / Ref #								À venir/ Back Order	
1	650.6511 Rev.PB2	650.6511 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	5	5	0	0	0	0
2	650.6213 Rev.PE1	650.6213 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	2	2	0	0	0	0
3	650.6210 Rev.PE1	650.6210 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0	0

RECEIVED

JUL 29 2020

DART AEROSPACE LTD.



Certificat de Conformité / Certificate of Compliance



0 2 9 8 6 9 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupepaltech.com

Bon de Livraison / Packing Slip

029869 - 1

Livré à / Ship to

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA

Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA

BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courtier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
28-Jul-2020		Ian Wilson		POHB046796				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Quantités / Quantities				
				Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
4	650.6312 Rev.PG2	650.6312 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0
5	650.7711 Rev.PF1	650.7711 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0
6	650.6316 Rev.PG2	650.6316 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	2	2	0	0	0


Certificat de Conformité / Certificate of Compliance


2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip
029869 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.					
28-Jul-2020		Ian Wilson		POHB046796					
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Quantités / Quantities					
				Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order	
7	650.6310 Rev.PG2	650.6310 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0	

DAS
82
9-89

RECEIVED
 JUL 29 2020
 DART AEROSPACE LTD.

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.

Page 1 of 1

All amounts are calculated in domestic currency.

All Line Item Types

Total Received Quantity:	72.0000
Total Qty to Inspect (PO U/M):	0.0000
Total Reject Quantity:	0.0000
Total Receipt Value:	\$328.38
Total Balance Due Quantity:	0.0000



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No: 1859559

Ship From:	Sold To:	Ship To:	Deliver To:
A. M. Castle & Co. MONTREAL - CASTLE METALS 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped	F.O.B.	Freight Terms	Carrier
22-AUG-2013	ORIGIN	Prepaid	MAINTOULIN
BOL No		1859559-2	

Shipment Details	Final Destination Branch - MON
------------------	--------------------------------

Order No	Line No	Item No	Description				
2995892	2	23970	1.0000.RD.17CR-4NI.STAINLESS.CF.H1150.132.0000-156.0000 SPECIFICATIONS: AMS 5643 Email P/s and Certs to : clavoie@artaero.com				
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
20939		12.00 FT	11.5000 FT				
Details							
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S FORWARD COPY OF P/S TO TRACY (MONTREAL) Email P/s and certs to: clavoie@artaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS ECCN # EAR99							
Delivery No.	Mill	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
119063912	OUTOKUMPU STAINLESS INC.	G18959		1 ✓		138.0000	30.7050

SB B-8-23

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, ware/eare exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date: Name:

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.
Date Printed: 22-AUG-2013 11:30:00 AM



Certificate of Test

HEAT G18959

ORDER 627435/ 04 BOL 0217841 * CERTIFICATION * 06/21/12

SHIP TO:

A. M. CASTLE METALS
3400 NORTH WOLF ROAD

FRANKLIN PARK

601310000

147459

YOUR ORDER & DATE
6/21/12 CUST# 0254001 CUST TAG#23970

ITEM DESCRIPTION

GRADE 17-4 Ship Condition H1150
Size 17-4 RND CFA H1150 1.0000 x 144.000 RL
Country of Melt: UNITED STATES Country of Mfg.: UNITED STATES
NAFTA Country of Origin is Country of Melt

No weld repair
Free of mercury contamination, Free of radiation contamination
No WEEE relevant substances; Meets EU electrical ROHS

Total Bundles 1 Total Weight 3018

WO 2031141 Bundles: 1C

SPECIFICATIONS

THE PRODUCTS LISTED ON THIS MILL TEST REPORT SATISFY PREFERENCE CRITERION B
AS DEFINED IN ARTICLE 401 OF THE NORTH AMERICAN FREE TRADE AGREEMENT.
AMS 2303F UNS S17400, AISI 630
ASME SA564 E10 A11a ASTM A484 11
ASTM A564 10 Type 630 DFARS 252.225.7009 10/4/11
AM Castle 3174-04 R31 Sol Ann 1900F/1Hr/Rapid Cool
Aged at 1150F for 4 hr, AC AMS 5643R Chemistry

MECHANICAL & OTHER TESTS

Hardness as shipped	327 HB		
Hardness as shipped	035 HRC	Tensile strength, KSI (MPa)	150.0 (1034)
Grain size	6.0	0.2% Yield Strength, KSI (MPa)	132.0 (910)
Micro	OK		
Intergranular corrosion		Elongation % in 4D	18.0
Macro	OK	Reduction of area %	59.0
		Charpy (ft lb)	92 100 104 Avg 98
		Charpy Test Temperature	RT
Ferrite	1.0	Lateral Exp (mils)	43 50 52 Avg 48

CHEMICAL COMPOSITION

Carbon (C)	.026	Manganese (Mn)	.810
Phosphorus (P)	.020	Sulphur (S)	.028
Silicon (Si)	.430	Chromium (Cr)	15.390
Nickel (Ni)	4.280	Cobalt (Co)	.050
Copper (Cu)	3.800	Moly (Mo)	.260
Nitrogen (N)	.034	Columbium (Cb)	.250
Titanium (Ti)	.010	Aluminum (Al)	.010
Tin (Sn)	.010	Boron (B)	.001
Tantalum (Ta)	.010	Vanadium (V)	.070
Tungsten (W)	.050		.000
Columbium/			
Tantalum (Cb+Ta)	.260		
Iron (Fe)	Balance		
Frequency	.000	Severity	.000
Melt Practice	EAF		
Refining Practice	AOD		
De-long Ferrite			

Knowingly & willfully falsifying or concealing a material act on this form, or making false, fictitious or fraudulent statements or representations herein could constitute a felony punishable under federal statutes. We hereby certify that the test results shown in this report are correct and accurate as contained in the records of the company and are in compliance with the specifications, codes, and standards listed above.

M.F. Marcanio, Quality Manager

M.F. Marcanio

